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CLAIMS:

1. An amphipathic glycopeptide, wherein the glycopolypeptide comprises at least 9 amino acid residues, and wherein at least one of the amino acid residues is glycosylated.

- 2. The glycopeptide of Claim 1, wherein the amino acid sequence comprises an N-terminal opioid message sequence, a C-terminal address sequence, and a linker sequence between the message sequence and the address sequence.
- 3. The glycopeptide of Claim 1, wherein the N-terminal sequence is Y-t-G-F- or Y-a-G-F-.
 - 4. The glycopeptide of Claim 1, wherein the N-terminal sequence is Y-t-G-F-L-P-.
 - 5. The glycopeptide of Claim 1, wherein the N-terminal sequence is Y-t-G-F-L-βA-.
 - 6. The glycopeptide of Claim 1, wherein the N-terminal sequence is Y-t-G-F-L-G-G-.
 - 7. The glycopeptide of Claim 1, which is a glycosylated enkephalin.
 - 8. The glycopeptide of Claim 1, which is a glycosylated endorphin.
- 9. The glycopeptide of Claim 1, which adopts a helical conformation in the presence of a lipid bilayer.
- 10. The glycopeptide of Claim 1, which is substantially non-helical in water in the absence of a lipid bilayer.
- 11. The glycopeptide of Claim 1, which is substantially non-helical in water in the absence of a lipid bilayer and adopts a helical conformation in the presence of a lipid bilayer.
 - 12. The glycopeptide of Claim 1, wherein one amino acid residue is glycosylated.

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13. The glycopeptide of Claim 1, wherein two amino acid residues are glycosylated.

- 14. The glycopeptide of Claim 1, which comprises at least one serine residue that is glycosylated.
- 15. The glycopeptide of Claim 1, which comprises 2 serine residues that are glycosylated.
- 16. The glycopeptide of Claim 1, which is glycoslated with a glycosyl unit havin g at most 8 saccharide units.
- 17. The glycopeptide of Claim 1, which is glycoslated with a glycosyl unit havin g at most 4 saccharide units.
- 18. The glycopeptide of Claim 1, which is glycoslated with a glycosyl unit havin g at most 2 saccharide units.
- 19. The glycopeptide of Claim 1, which is glycoslated with a glycosyl unit havin g at most 1 saccharide unit.
 - 20. The glycopeptide of Claim 1, which contains one serine glucoside residue.
 - 21. The glycopeptide of Claim 1, which contains 2 serine glucoside residues.
 - 22. The glycopeptide of Claim 1, which comprises at least 10 amino acid residue s.
 - 23. The glycopeptide of Claim 1, which comprises at least 12 amino acid residue s.
 - 24. The glycopeptide of Claim 1, which comprises at least 14 amino acid residue s.
 - 25. The glycopeptide of Claim 1, which comprises at least 15 amino acid residue s.
 - 26. The glycopeptide of Claim 1, which comprises at least 17 amino acid residue s.

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27. The glycopeptide of Claim 1, which comprises at least 19 amino acid residues.

- 28. The glycopeptide of Claim 1, which comprises at most 60 amino acid residues.
- 29. The glycopeptide of Claim 1, which has at most 5% helicity as measured by circular dichroism in water and at least 10% helicity in the presence of a lipid bilayer.
 - 30. The glycopeptide of Claim 1, which crosses the blood-brain-barrier.
- 31. The glycopeptide of Claim 1, which is selective for at least one receptor selected from the group consisting of the delta opioid receptor, mu opioid receptor and kappa opioid receptor.
- 32. The glycopeptide of Claim 1, wherein the amino acid sequence comprises an N-terminal non-opioid message sequence, a C-terminal address sequence, and a linker sequence between the message sequence and the address sequence.
- 33. The glycopeptide of Claim 32, wherein the non-opioid message sequence is from corticotropin releasing factor (CRF), lutenizing hormone (LH), human chorionogonadotropin (hCG), follicle stimulating hormone (FSH), vasoactive intestinal peptide (VIP), bradykinin, vasopressin, neurokinins, substance P or prolactin.
- 34. A pharmaceutical composition comprising the glycopeptide of Claim 1 and at least one pharmaceutically acceptable carrier and/or excipient.
- 35. A method of relieving pain, comprising administering an effective amount of the glycopeptide Claim 1 to a subject in need thereof.
- 36. A method of providing analgesia, comprising administering an effective amount of the glycopeptide Claim 1 to a subject in need thereof.
- 37. A method of treating anxiety, depression, obesity, anorexia nervosa, phobias, schizophrenia, Parkinson's disease and Alzheimer's disease, comprising administering an effective amount of the glycopeptide Claim 1 to a subject in need thereof.